APPENDIX 5-4

HMR52 PROBABLE MAXIMUM STORM

USER'S MANUAL AND INSTALLATION INSTRUCTIONS

1. APPENDIX 5-4

2.1 HMR52 PROBABLE MAXIMUM STORM USER'S MANUAL

The HMR52 Probable Maximum Storm User's Manual ad Installation Instructions documentation may be found by following the URL address below.

http://www.hec.usace.army.mil/publications/ComputerProgramDocumentation/CPD-46.pdf

2.2 INSTALLATION INSTRUCTIONS

This version of HMR52 (April 1987) will run on an IBM or compatible microcomputer that has the following:

- 256 kilobytes (KB) of Random Access Memory (RAM)
- MS DOS 2.1 or greater
- One 5 1/4 inch floppy diskette drive (360 KB or 1.2 MB)
- A 10 Megabyte (or larger) hard disk is recommended
- A math coprocessor (8087, 80287, or 80387) is highly recommended, but not required. The math coprocessor will greatly reduce the execution time of the program (increases computation speed by a factor of 5 to 10).

2.2.1 Program Installation

2.2.1.1 Contents of HMR52 Diskette

The HMR52 computer program, example input data, and example output are provided on a 5 1/4 inch double sided 360 KB floppy diskette as follows:

HMR52 DISKETTE:	HMR52.EXE
	JONES.DAT
	LEON.DAT
	HMR52T.DAT
	WASH.DAT
	JONES.OUT
	LEON.OUT
	WASH.OUT
	README.DOC

Explanation of Files Included on the HMR52 Package Diskette:

HMR52.EXE:	The HMR52 program in an executable form.
HMR52T.DAT:	HMR52 table file, which contains Hydromet Report No. 51 in tabular form (this is necessary for execution of the program).

JONES.DAT:	HMR52 example input data.
LEON.DAT:	HMR52 example data.
WASH.DAT:	HMR52 example data.
JONES.OUT:	example output file for JONES.DAT.
LEON.OUT:	example output file for LEON.DAT.
WASH.OUT:	example output file for WASH.DAT.
README.DOC:	file containing this implementation guide.

2.2.2 Installation on a Hard Disk System

The following set of instructions will allow the user to run the HMR52 program from any of the user's data directories.

1. You will need to create three directories. One of the directories should be labeled \HECEXE. This directory will be used to store all of the HEC executable programs. A second directory should be labeled \HECEXE\SUP. This directory will be used to store all of the supplemental files required by the executable programs. A third directory should be created to store data files. This data directory can be given any name. You may want this data directory to represent a specific project, person, or program. For this example, let's assume that you are going to label the data directory \ HMR52. To accomplish these tasks do the following:
   - Go to the drive (e.g. C:) in which you would like to install the software
   - Type MD\ HMR52 then press the <ENTER> key.
   - Type MD\HECEXE then press the <ENTER> key.
   - Type MD\HECEXE\SUP then press the <ENTER> key.
2. Place the HMR52 diskette into the A drive.

3. The next step will be to copy the HMR52 input and output files. If you do not want these files copied to your hard disk, go to step 4. If you would like these files copied to your hard disk, do the following:
   Type CD HMR52 then press the <ENTER> key.
   Type COPY A: *.DAT C: then press the <ENTER> key.
   Type COPY A: *.OUT C: then press the <ENTER> key.

4. The next step will be to copy the HMR52 program. The file is named HMR52.EXE. Use the following commands to do so:
   Type CD\HECEXE then press the <ENTER> key.
   Type COPY A:*EXE C: then press the <ENTER> key.
   Type CD \ then press the <ENTER> key.

5. To allow access of the executive programs from any directory, it will be necessary to edit the AUTOEXEC.BAT file to include a path to the \HECEXE directory. The

AUTOEXEC.BAT file should be in your root (C:\) directory. The following is an example PATH command that would allow access to the \HECEXE directory as well as the root (C:\) directory.

PATH C:\;C:\HECEXE

You may want to include a path to other directories of your system. If so, just add the names of the directories. If so, just add the names of the directories to this command. For more information on the PATH command and the AUTOEXEC.BAT file, consult your DOS manual.

6. The final step will be to modify your CONFIG.SYS file. Many HEC programs require the capability to open more than eight (8) files at any one time. Because eight is the system default, you will need to modify your CONFIG.SYS file to include the following two lines:

FILES=20
BUFFERS=20

For more information concerning the CONFIG.SYS file, consult your DOS manual.

2.3 PROGRAM EXECUTION

To run HMR52 from the hard disk to the following commands:

- Go to the directory in which your data are stored (e.g. \ HMR52).
- Type HMR52 then press the <ENTER> key. The program will then prompt you for input filename, output filename, etc.

OR

- Type HMR52 INPUT=filename OUTPUT=filename then press the <ENTER> key; where:

INPUT=filename:	the filename where the HMR52 input data resides
OUTPUT=filename	the filename where the output data will be written. If the user wishes the output to go directly to the screen or printer, the commands CON (screen) or LPT1 (printer) can be sued in place of the output filename.

To run HMR52 from a floppy diskette do the following commands:

- Place the diskette containing the HMR52 program on it in drive A.
- Type A: HMR52 then press the <ENTER> key. The program will then prompt you for input filename, output filename, etc.

OR

- Type HMR52 INPUT=filename OUTPUT=filename then press the <ENTER> key; where:

INPUT=filename:	the filename where the HMR52 input data resides
OUTPUT=filename	the filename where the output data will be written. If the user wishes the output to go directly to the screen or printer, the commands CON (screen) or LPT1 (printer) can be sued in place of the output filename.

2.3.1 Program Verification

Using the above example, you can execute the HMR52 program by using of the example data files provided to you. At this point you should compare your output file with the one provided to you. Comparing the two output files can be accomplished by using the DOS compare command (COMP). Check your results to insure that they are the same, except for execution date and time, as to what we provided to you. This will insure that the program is working correctly on your computer system.

2.4 PROGRAM PROBLEMS

If any errors are encountered which indicate potential problems in this HMR52 package, please contact the HEC.

U.S. Army Corps of Engineers
The Hydrologic Engineering Center
609 Second Street
Davis, CA 95616 USA
(916) 551-1748